

FORTHCOMING BOOKS OF SCIENCE.

MESSRS. BAILLIERE, TINDALL AND COX announce:—"Mucous Membranes," by W. Stuart-Low; "Conjunctivitis," by N. Bishop Harman; "Surface Anatomy," by T. Gillman Moorhead; "Elementary Microscopy," by F. Shillington Scales; "Lectures on Appendicitis, Hernia, and Perforating Ulcers," by G. R. Turner; "Surgical Diagnosis," by H. W. Carson; "Medical Diagnosis," by Dr. A. J. Whiting; "Manual of Anatomy," by Prof. A. M. Buchanan; "Manual of Midwifery," by Dr. H. Jellett; "Psychiatry," by Prof. Bianchi, translated by Dr. J. MacDonald; "Manual of Practical Sanitary Science and Laboratory Work," by Dr. D. Somerville; "Asepsis," by Dr. A. S. Vallack; "Dictionary of New Medical Terms," by Dr. A. M. Gould; "Military Hygiene," by Major R. Caldwell; "Veterinary Toxicology," by Lieut.-Col. J. A. Nunn; "Lectures on Clinical Surgery," by Dr. H. C. Hinder; "Diseases of the Foot of the Horse," by H. Caulton Reeks; "Artistic Anatomy of Animals," by E. Cuyet, translated by G. Hayward; "Coroners' Duties," by Dr. R. H. Wellington; "Pathology," by Dr. W. D'Este Emery; and new editions of "Röntgen Rays in Medical Work," by Dr. D. Walsh; "Manual of Veterinary Hygiene," by Lieut.-Col. F. Smith; and "Animal Parasites," by Prof. G. Neumann, translated by Dr. G. Fleming, and edited by Prof. J. Macqueen.

In Messrs. A. and C. Black's list we notice:—"The Metaphysics of Nature," by Carveth Read, and a "Treatise on Zoology," edited by Dr. E. Ray Lankester, F.R.S., part v., "Mollusca."

The announcements of the Cambridge University Press include:—"The Lands of the Eastern Caliphate," by G. Le Strange; "Trees, vol. iii., Inflorescences and Flowers," by Prof. H. Marshall Ward, F.R.S.; "The Origin and Influence of the Thorough-bred Horse," by Prof. W. Ridgeway; "The Plague," by Dr. W. J. Simpson; and "Immunity in Infectious Diseases," by Prof. E. Metchnikoff, authorised English translation by F. G. Binnie, illustrated.

The list of Messrs. Cassell and Co., Ltd., contains:—"The Book of Photography, Practical, Theoretic, and Applied," edited by P. N. Hasluck, illustrated; "Cassell's Popular Gardening," edited by W. P. Wright, illustrated; "Nature's Riddles, or the Battle of the Beasts," by W. H. Shephard-Walwyn, illustrated; "Cassell's Physical Educator," by E. Miles, illustrated; and "Pictorial Practical Tree and Shrub Culture," by W. P. Wright and W. Dallimore, illustrated; "Certificate Geometry," by W. P. Workman and A. G. Cracknell; and "General Elementary Science, part ii., Plant and Animal Life," by W. S. Furneaux.

Messrs. Chapman and Hall, Ltd., promise:—"The Principles of Heredity," by Archdall Reid.

The Clarendon Press list contains:—"Schiaparelli's 'Astronomy in the Old Testament,' authorised English translation, with additions by the author; 'The Faroes and Iceland,' by N. Annandale; 'The Farther East,' by A. Little; 'Index Kewensis Plantarum Phanerogamarum, supplementum secundum, nomina et synonyma omnium generum et specierum ab initio anni 1896 ad finem anni 1900 complectens,' pars. i., fasc. ii.; Goebel's 'Organography of Plants,' authorised English translation, by Prof. I. Bayley Balfour, F.R.S., vol. ii., 'Special Organography'; Knuth's 'Flower Pollination,' authorised English translation, by Prof. J. R. Ainsworth Davis; Solereder's 'Anatomical Characters of the Dicotyledonous Orders,' authorised English translation, by L. A. Boodle; and 'The Masai: their Language and Folklore,' by A. C. Hollis.

Messrs. Archibald Constable and Co. will publish:—"Leprosy and Fish Eating," by Dr. J. Hutchinson, F.R.S.; "Principles of Practical Microscopy," by Dr. A. E. Wright; "Physiology of the Nervous System," by J. P. Morat, translated and edited by Dr. H. W. Syers; "The Lymphatics," by G. Delamere, P. Poirier, and B. Cunéo, translated and edited by C. H. Leaf; "Surgical Anatomy of the Lymphatic Glands," by C. H. Leaf; "The Prevention of Disease," translated from the German by Dr. W. Evans; "Steam Boilers," by H. H. Powles, illustrated; "Steam Pipes," by W. H. Booth, illustrated; "The Economic and Commercial Theory of Heat Power Plants," by Prof. R. H. Smith; "Motor Vehicles and Motors," by W. W. Beaumont,

vol. ii., illustrated; "Compressed Air: its Production, Uses and Applications," by G. D. Hiscox, illustrated; "Reinforced Concrete Construction," by A. W. Buel and C. S. Hill, illustrated; "Cotton Seed Products: a Manual of the Treatment of Cotton Seed for its Products and their Utilisation in the Arts," by L. L. Lamborn, illustrated; "Plat and Profile Book for Civil Engineers and Contractors," by H. F. Dunham; "Engineering Contracts and Specifications," by Prof. J. B. Johnson; "Earthwork and its Cost," by H. P. Gillette, illustrated; "The Elements of Water Supply Engineering," by E. S. Gould; "Tables of Squares," by J. L. Hall; "Mechanics—Problems for Engineering Students," by Prof. F. B. Sanborn, illustrated; "The Railway Transition Spiral," by Prof. A. N. Talbot; "Tables for Obtaining Horizontal Distances and Differences of Level from Stadia Readings," by Noble and Casgrain; "Technic of Mechanical Drafting," by G. W. Reinhardt, illustrated; "Surveying Manual," by W. D. Penne and M. S. Ketchum; "Earth Dams," by B. Bassell, illustrated; "The Design of Steel Mill Buildings, and the Calculation of Stresses in Framed Structures," by M. S. Ketchum, illustrated; "Topographical Record and Sketch Book for use with Transit and Stadia," by D. L. Turner; "Cleaning and Sewerage of Cities," by Prof. R. Baumeister, illustrated; "Field Practice of Railway Location," by W. Beahan, illustrated; "Tables of Logarithms of Lengths up to 50 Feet, varying by 1/16 of an Inch," by T. W. Marshall; "Economics of Road Construction," by H. P. Gillette; "Maxwell's Theory and Wireless Telegraphy," part i., "Maxwell's Theory and Hertzian Oscillations," by H. Poincaré, translated by K. Vreeland; part ii., "The Principles of Wireless Telegraphy," by K. Vreeland; and new editions of "Gas Engine Construction," by H. V. A. Parsell, jun., and A. J. Weed, illustrated; "Gas, Gasoline and Oil Engines," by G. D. Hiscox, illustrated; "Liquid Air and the Liquefaction of Gases," by Dr. T. O'Connor Sloane, illustrated; "Shop Kinks," by R. Grimshaw, illustrated; "Railway Track and Track Work," by E. E. R. Tratman; "City Roads and Pavements Suited to Cities of Moderate Size," by W. P. Judson, illustrated.

Messrs. J. M. Dent and Co. announce:—"Physiological Psychology," by Dr. W. McDougall.

Messrs. Duckworth and Co. promise:—"Metapsychical Phenomena," by Dr. J. Maxwell, with prefaces by Sir Oliver Lodge and Prof. Ch. Richet, translated by Mrs. Finch.

Messrs. R. Friedländer and Son (Berlin) announce:—"Annales Mycologici," vol. iii.; "Die Vögel der paläarktischen Fauna," by Dr. E. Hartert, Heft iii.; "Die Vögel Islands," by P. Hantzsch; "Analytische Übersicht der paläarktischen Lepidopterenfamilien," by C. v. Hornumaki; "Wissenschaftl. Ergebnisse einer zoologischen Expedition nach dem Baikalsee 1900-2," by A. Korotneff, i. Lief., by W. Michaelson, "Die Oligochaeten"; "Mitteilungen aus dem zoologischen Museum in Berlin," ii. Band, iv. Heft, by J. Thiele, "Beiträge z. Morphologiss. Arzuiden"; "Abbildungen der in Deutschland und den angrenzenden Gebieten vorkommenden Grundformen der Orchideen," by W. Müller and F. Kranzlin, illustrated; "Das Tierreich," edited by F. E. Schulze, Lief. 21, T. R. Stebbing, "Aphipoda," i.; Lief. 22, H. Stichel and H. Riffarth, "Heliconiidae"; Lief. 23, L. v. Graff, "Turbellaria, i. Acœla"; "Catalogus Mammalium tam viventium quam fossilium," by E. L. Trouessart, Quinquennale Supplementum, Anno 1904, Fasc. iii.; "Die neue Lösungs- und elektrochemische Theorie," by L. Zeschko.

Messrs. Gauthier-Villars (Paris) promise:—"Precis de Photographie générale," by E. Belin, tome ii., "Applications scientifiques et industrielles"; "Traité d'Analyse," by Prof. E. Picard, tome iv., "Equations aux Dérivées partielles"; and "Leçons de Mécanique céleste," by Prof. H. Poincaré, tomes ii. and iii.

Mr. Henry J. Glaisher announces:—"Mucomembranous Enterocolitis," by Dr. Froussard, edited by Dr. E. Blake; "The Westminster Hospital Reports, 1903-4," vol. xiv., edited by Drs. E. P. Paton and P. Stewart; "The Intestinal Catarrhs," by Dr. E. Blake; "X-Ray Charts," by Dr. R. J. Cowen; "A Short Essay on Insanity," by C. Williams; and "Ethyl Chloride in Surgical and Dental Practice," by A. de Prenderville.

The announcements of Messrs. Charles Griffin and Co., Ltd., are:—"An Introduction to the Design of Beams,

Girders, and Columns, in Machines and Structures, with Examples in Graphic Statics," by W. H. Atherton, illustrated; "Smoke Abatement," by W. Nicholson, illustrated; and new editions of "Electrical Practice in Collieries," by D. Burns, illustrated; "The Principles and Construction of Pumping Machinery (Steam and Water Pressure)," by H. Davey, illustrated; "The Metallurgy of Steel," by F. W. Harbord, illustrated; "Gas, Oil, and Air Engines," by B. Donkin, illustrated; and "Properties of Matter" (vol. i. of "A Text-Book of Physics"), by Profs. J. H. Poynting, F.R.S., and J. J. Thomson, F.R.S., illustrated.

Mr. Heinemann directs attention to:—"Publications of an American Archæological Expedition to Syria in 1899-1900, part iv., Semitic Inscriptions," by Dr. E. Littmann, illustrated.

Messrs. Hodder and Stoughton's list includes:—"Nerves in Order, or the Maintenance of Health," by Dr. A. T. Schofield; "Modern Electricity," by J. H. and K. J. Hora; "Woodmyth and Fable," by E. Thompson Seton; "The Lure of the Labrador Wild, a Story of the Exploring Expedition conducted by Leonidas Hubbard, jun.," by D. Wallace; and "The New Knowledge, a Simple Explanation of the New Physics and the New Chemistry in their Relation to the New Theory of Matter," by Prof. R. K. Duncan.

Mr. U. Hoepli (Milan) announces:—"Contribuzioni alla Storia della Botanica," by O. Penzig; and "La Flora Legnosa del Sottoceneri," by A. Bettelini.

In Messrs. Longmans and Co.'s list we notice:—"A Systematic Course of Practical Organic Chemistry," by L. G. Radcliffe; "Elementary Steam Engineering," by H. W. Metcalfe, illustrated; and "An Atlas of Dermatology," by Dr. M. Dockrell; "A Common Humoral Factor of Disease, and its Bearing on the Practice of Medicine," by Dr. F. Hare, 2 vols.; "Ice or Water, another Appeal to Induction from the Scholastic Methods of Modern Geology," by Sir H. H. Howorth, K.C.I.E., F.R.S.

Messrs. Macmillan and Co., Ltd., direct attention to:—"The Life History of British Flowering Plants," by Lord Avebury, F.R.S.; "The Historical Relations of Medicine and Surgery," being the address delivered at the St. Louis Exhibition by Prof. T. Clifford Allbutt, F.R.S.; "Tribes of the Malay Peninsula," by W. W. Skeat, illustrated; "A Treatise on Chemistry," by Sir H. E. Roscoe, F.R.S., and Prof. C. Schorlemmer, F.R.S., i., "The Non-Metallic Elements," revised by Drs. H. G. Colman and A. Harden; "Stonehenge Astronomically Considered," by Sir Norman Lockyer, K.C.B., F.R.S., illustrated; "The Theory of Light," by Dr. C. E. Curry; "Magnetism and Electricity for Students," by H. E. Hadley; "Lectures on the Philosophy of Kant, and other Lectures and Essays," by the late Prof. H. Sidgwick; "Philosophical Studies," by D. G. Ritchie, edited by Prof. R. Latta; and a new edition of "A Handbook of Metallurgy," by C. Schnabel, translated and edited by Prof. H. Louis.

Messrs. Masson and Co. (Paris) promise:—"Traité de Chimie minérale," edited by H. Moissan, tome ii., fasc. i.; tome iv., fasc. i.; "Le Chauffage des Habitations, par Circulation d'Air chaud, de Vapeur ou d'Eau chaude," by R. Périssé; "Le Chauffage électrique," by Lévylier; "Les Moulins à Vent," by Prof. Hérissou; "Le Vinaigre," by Astruc; "Procédés de Commande mécanique par l'Électricité," by Capt. Frilley; and "L'Industrie de l'Or," by L. M. Granderye.

Messrs. Methuen and Co. announce:—"Archæology and False Antiquities," by Dr. R. Munro.

Mr. John Murray's list includes:—"Lhasa and its Mysteries," by Lieut.-Col. L. A. Waddell, C.B., illustrated; "Our Sudan, its Pyramids and Progress," by J. Ward; "An Expedition into the Central Tian Shan, carried out in the Years 1902-1903," by Dr. G. Merzbacher, illustrated; "An Account of the Rothamsted Experiments," by A. D. Hall; "Recent Development in Biological Science," by W. B. Hardy, F.R.S.; "Descartes: his Life and Times," by E. S. Haldane, illustrated; "Artillery and Explosives," essays and lectures written and delivered at various times, by Sir A. Noble, K.C.B., F.R.S., illustrated; "Growth and Spread of Culture," by Prof. E. B. Tylor, F.R.S., illustrated; and new editions of "Marine Boilers, their Construction and Working," dealing more especially with tubular boilers, based on the first edition of the work by M. L. E. Bertin, edited by L. S. Robertson, illustrated;

"The Vegetable Garden, or the Edible Vegetables, Salads and Herbs Cultivated in Europe and America," by W. Robinson.

Messrs. George Newnes, Ltd., promise:—"Reptile Life," by W. P. Pyecraft.

Messrs. Oliver and Boyd (Edinburgh) direct attention to:—"Structural and Field Geology for Beginners in Geology and Students of Mining, Civil Engineering, Agriculture, Public Health, &c.," by Prof. J. Geikie, F.R.S., illustrated.

Messrs. G. P. Putnam's Sons give notice of:—"The Case for Physical Culture," by H. I. Hancock, illustrated; "The Jordan Valley and Petra," by Prof. W. Libbey and Rev. F. E. Hoskins, illustrated; "Physical Regeneration," by J. Cantlie, illustrated; "The Trees of North-Eastern America," with introduction by N. L. Britton; and new editions of "The Shrubs of North-Eastern America," by C. S. Newhall, illustrated; "An Introduction to Vertebrate Embryology based on the Study of the Frog and the Chick," by Dr. A. M. Reese, illustrated; "Materia Medica for Nurses," by L. L. Dock; and "Thinking, Feeling, Doing," by Dr. E. W. Scripture, illustrated.

The list of the Walter Scott Publishing Co. includes:—"Diet and Hygiene for Infants," by Dr. F. H. Alderson.

Messrs. Swan Sonnenschein and Co., Ltd., announce:—"The History of Philosophy," by Dr. J. E. Erdmann, fifth German edition, revised by W. B. Erdmann, an English abridgment, translated and edited by W. S. Hough; "Student's Text Book of Zoology," by A. Sedgwick, F.R.S., vol. ii., illustrated; "The Races of South Africa: their Migrations and Invasions, showing the Intrusion of the Stronger Races into Hunting Grounds of the Ancient Abatur or Bushmen, the Aboriginal Cave Dwellers of the Country," by G. W. Stow, illustrated; "Physiological Psychology," a translation of the fifth and wholly re-written (1902-3) German edition, by Prof. E. B. Titchener, vol. ii., illustrated; and new editions of "Introduction to the Study of Organic Chemistry," by J. Wade; "Sanatoria for Consumptives in Various Parts of the World," by F. R. Walters, illustrated; and "Handbook of Systematic Botany," by Dr. E. Warming, edited by Prof. M. C. Potter, illustrated.

The list of the University Tutorial Press, Ltd., comprises:—"Chemistry, First Stage, Theoretical Organic" by Dr. R. A. Lyster; "Chemistry, Junior," by R. H. Adie; "Technical Electricity," by Prof. H. T. Davidge and R. W. Hutchinson; "Magnetism and Electricity, School," by Dr. R. H. Jude; "Practical Physics," by W. R. Bower; "Properties of Matter," by C. J. L. Wagstaff; "Elementary Science of Common Life (Chemistry)," by W. T. Boone; "Physiography, Section One"; "Geometry, Junior," by W. P. Workman and A. G. Cracknell; "Geometry, Preliminary (Part i., Junior Geometry)," by the same authors; "Geometry, Theoretical and Practical," by the same authors; "Scholarship Geometry," by W. P. Workman and A. G. Cracknell; "Scholarship Elementary Science, Section i."; "Scholarship Elementary Science, Section ii., (a) Chemistry, (b) Astronomy (c) Biology"; and new editions of "Chemical Analysis," by Drs. W. Briggs and R. W. Stewart; "Light, Text-Book of," by Dr. R. W. Stewart; "Inorganic Chemistry, Second Stage (Theoretical)," by Dr. G. H. Bailey; and "The New Matriculation Physics: Heat, Light, and Sound," by Dr. R. W. Stewart.

Mr. T. Fisher Unwin announces:—"Travels of a Naturalist in Northern Europe," by J. A. Harvie-Brown; "Siberia, a Record of Travel, Exploration, and Climbing," by S. Turner; "The Age of the Earth, and other Geological Studies," by Prof. W. J. Sollas, F.R.S.; and "Gardening for the Million," by A. Pink.

Messrs. W. Wesley and Son promise:—"An authorised English edition of the 'Atlas of Emission Spectra of most of the Elements,'" by Prof. A. Hagenbach and H. Konen, translated by Dr. A. S. King.

The following are Messrs. Whittaker and Co.'s announcements:—"Steam Turbines," by H. M. Hobart and T. Stevens; "Armature Construction," by H. M. Hobart; "Concrete-Steel, a Treatise on the Theory and Practice of Reinforced Concrete Construction," by W. Noble Twelve-trees; "Practical Wireless Telegraphy and Telephony," by Prof. Mazzotto, translated by S. R. Bottone; and new

editions of:—"Electricity in its Application to Telegraphy," by T. E. Herbert; "Central Station Electricity Supply," by A. Gay and C. H. Yeaman; "The Alternating-Current Circuit and Motor," by W. P. Maycock; and "Radium," by S. R. Bottone.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

CAMBRIDGE.—An Arnold Gerstenberg studentship will be offered for competition in the Michaelmas term of 1906. The studentship will be awarded by means of essays. Every candidate must send on or before October 1, 1906, an essay on one of the subjects printed below addressed to Dr. James Ward, Trinity College. The studentship, which will be of the annual value of nearly 90*l.*, will be tenable for two years, upon the condition that at the end of the first year the student's progress in philosophical study is deemed satisfactory by the board of managers. The subjects for essays are:—(1) a philosophical discussion of the doctrine of energy and particularly of the new theory of energetics; (2) a critical examination of Descartes' philosophy of nature; (3) the relation of mathematics and the theory of probability to physics; (4) the theory of psychophysical parallelism; (5) the scope and methods of comparative psychology; (6) the philosophical import of post-Darwinian theories of natural selection.

The principal and the professors at McGill University, Montreal have nominated Mr. L. V. King, a student in the faculty of arts, to the Canadian scholarship lately established at Christ's College.

An exhibition of 50*l.* a year tenable for two years is offered by the governing body of Emmanuel College to an advanced student commencing residence at the college in October, 1905. Applications should be sent to the master of Emmanuel (from whom further particulars may be obtained) not later than October 1.

The local examinations and lectures syndicate is about to elect an assistant secretary for the department of the local lectures. The appointment will be in the first instance for one year. The stipend will be 150*l.* in an ordinary year, and 200*l.* in those years in which summer meetings are held. Graduates of the university who desire to offer themselves as candidates are requested to send their names before May 8 to the Rev. D. H. S. Cranage.

THE London School of Tropical Medicine has been admitted as a school of the University of London in the faculty of medicine in tropical medicine only.

The committee of the Liverpool School of Tropical Medicine has appointed Mr. R. T. Newstead lecturer in economic entomology and parasitology.

THE fourth annual students' soirée of the Sir John Cass Technical Institute will be held in the institute, Jewry Street, Aldgate, E.C., on Saturday, March 18. Exhibits and demonstrations referring to the work of the various departments form part of the programme.

It is reported, says *Science*, that Mr. Andrew Carnegie has offered to give 100,000*l.* to the University of Virginia on the condition that the authorities of the institution raise a similar amount from other sources, and that the late James C. Carter, the eminent New York lawyer, has bequeathed 40,000*l.* to Harvard University. *Science* also states that at the first of the winter convocations of the George Washington University a gift of property, estimated to be worth 20,000*l.*, was announced for the establishment of a chair and course of graduate study on the history of civilisation. Various sums of money raised by the trustees and alumni association, aggregating 55,000*l.*, were also announced.

A COMMISSION was appointed a few years ago to inquire into the condition of manual and practical instruction in Irish primary schools, and, as the result of the recommendations made by this Commission, instruction in elementary experimental science was introduced into the primary schools of Ireland. The results of this teaching have, in the opinion of competent authorities, been in every way satisfactory. Not only has the educational value of

experimental science again been demonstrated, but its beneficial effects on the progress of Ireland's industries and agriculture have been made clear. Notwithstanding the success which naturally has followed the introduction of practical instruction in scientific principles into Irish elementary schools, the Treasury has refused to renew the small grant required to meet the necessary expenditure, and the work of organising science instruction in the schools—after four years—is being stopped. It is difficult indeed to understand so retrograde a policy. The incompleteness of all schemes of education which ignore the claims of practical instruction in the fundamental facts of science has been demonstrated repeatedly; the connection between American and German industrial success and the scientific systems of education established in these countries has become familiar to all interested in their country's welfare, so that no excuse—not even the urgent need of economy in national expenditure—can justify this action of the Treasury. It is to be hoped earnestly that steps may yet be taken to avert what would be nothing short of a calamity to Ireland, and that the work, which has begun so auspiciously under the present organisers of science instruction, instead of being stopped may be broadened and extended.

It is stated in the *Times* that the committee, presided over by Mr. Haldane, M.P., appointed to consider the allocation of the increased grant-in-aid of education of a university standard in arts and science has now finished its inquiry. Excluding 9000*l.* to be allotted later in the financial year, the committee proposes that the sum of 45,000*l.* (making a total grant of 54,000*l.*) be allotted as follows:—Manchester, 6000*l.*; University College, London, 5000*l.*; Liverpool, 5000*l.*; Birmingham, 4500*l.*; Leeds, 4000*l.*; King's College, London, 3000*l.*; Newcastle-on-Tyne, 3000*l.*; Nottingham, 2900*l.*; Sheffield, 2300*l.*; Bedford College, London, 2000*l.*; Bristol, 2000*l.*; Reading, 1700*l.*; Southampton, 1700*l.*; Dundee, 1000*l.* The committee expresses the view that the time has come for making a new departure in the principle on which State assistance is to be given to the highest education. It is recommended that a moderate sum should be set aside for distribution by way of payment to post-graduate students from the university colleges who devote themselves for one, two, or three years to special problems; and that to ensure the money being applied most efficiently to the stimulation of individual study, as distinguished from the general purposes of the college to the development of which other sums out of the grant are directed, the distribution should assume the form of a grant made directly to the student on the advice of some impartial authority. It is also suggested that the grant-in-aid should in future be made to a committee, instead of to the colleges direct, and that this committee should make an annual report to the Treasury, to be laid before Parliament. In conclusion the committee urges the necessity of leaving to the advisory committee discretion to deal with particular circumstances as they arise.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, February 9.—"On the Stellar Line near λ 4686." By Sir Norman Lockyer, K.C.B., F.R.S., and F. E. Baxandall, A.R.C.S.

In this paper the authors direct attention to a well-marked line of unknown origin which appears in one of the Kensington photographs of the helium spectrum near λ 4686.

It is shown that a conspicuous line near the same wave-length occurs in the spectra of the chromosphere, nebulae, bright-line stars, certain Orion stars, and in ζ Puppis, the star the spectrum of which was found by Prof. Pickering to contain a new series of lines which he considered to belong to hydrogen.

The mean wave-length of the stellar line, as derived from the available published records, is shown to agree very closely with the wave-length of the line in the laboratory spectrum, and the authors conclude that the identity of the two lines is probably a real one.

Rydberg has shown that the line near λ 4686 is the first line in the principal series of hydrogen, and the authors of the present paper consider that the "strange" line in